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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/797,776

03/10/2004

Brad Underwood

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4159

22879 7590 12/29/2006

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EXAMINER

LUU, AN T

ART UNIT

PAPER NUMBER

2816

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

12/29/2006

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/797,776

Applicant(s)

UNDERWOOD ET AL.

Examiner

An T. Luu

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 November 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) 12-28 is/are allowed.  
6) ☒ Claim(s) 1,2,5-8 is/are rejected.  
7) ☒ Claim(s) 3,4 and 9-11 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2 and 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by the Lundh et al reference (US Patent 6, 310,895).

Lundh discloses in figure 1 a distributed redundant control signal distribution system, said control system comprising a first control signal source (i.e., Generator 1 of plane A) co-located with a first set of control signal controlled circuit elements (i.e., Data circuit 4 of stage II of Plane A); at least one second control signal source (i.e., Generator 1 of plane B) co-located with a second set of control signal controlled circuit elements (i.e., Data circuit 4 of stage II of Plane B), a first controller (i.e., element 3 of plane A), and at least one second controller (i.e., element 3 of plane B); said first controller and second controller operable for substituting signals from said second control signal source for signals from said first control signal source if said signals from said first control signal source become unavailable to either said first or second circuit elements (See Col. 4, lines 1-4) as required by claim 1.

As to claim 2, figure 1 shows signals supplied from generators are for running different system within data circuit 4. Therefore, they are seen as system clocks.

As to claim 5, col. 10, lines 64-66, discloses element 3 comprising a multiplexer for selecting which one of said control signals controls said controlled circuit elements.

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As to claim 6, figure 7c and its associated description disclose multiplexers having a preset hierarchical control among their respective inputs (i.e., CLSY-A, CLSY-B and CLSY-C).

As to claims 7 and 8, figure 1 discloses each MUX being co-located with its respective said circuit elements.

### ***Response to Arguments***

3. Applicant's arguments filed on 11-7-06 have been fully considered but they are not persuasive.

Regarding the rejection of claims 1 under 35 USC 102(b), Applicant has argued that "the clock generators [in Lundh] are centrally located, while the data circuits that use the clock signals are located in different stations, see the Abstract, as well as column 4, line 7. Thus, the clock generating circuit of Lundh are not co-located with data circuit". Examiner respectfully disagrees since the Abstract and col. 4, line 7, do not stated as such. Rather, col. 4, lines 30-35, 56-52 and 63-67 indicate that a clock generator in one plane (i.e., plane A) can be supplied to other plane (i.e., plane B). In other words, clock signals from a clock generator in plane A can be utilized for circuits in plane A and circuits in any other plane.

### ***Allowable Subject Matter***

4. Claims 3, 4 and 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 12-28 are allowed.

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6. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to disclose an apparatus and method thereof comprising elements being configured as recited in claims. Specifically, none of the prior art teaches or fairly suggests the following limitations:

- *Said first and second sets of circuit elements are interconnected by at least two transmission paths and wherein said controlling signals travel over both of said transmission paths as required by claim 3.*
- *At least a third set of control signal controlled circuit elements wherein signals from said first control signal source control said third set of controlled circuit elements, said third set of controlled circuit elements having co-located therewith a controller for substituting signals from said second control signal source for said signals from said first signal control source if said signals from said first signal control source become unavailable as required by claim 9.*
- *A controller on each of said boards, said controller operable for hierarchically selecting clock signals from at least one of said signal connections; and wherein said signal controllers on said first and second electronic boards are further operable for hierarchically selecting one or the other of said clock sources as required by claim 12, 16 and 20. And,*
- *The controller of the first node operates in tandem with the controller of the second node to alternatively select between control signal sources of the first and second node to supply a control signal to the first set and second set of circuit elements as required by claim 21.*

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to An T. Luu whose telephone number is 571-272-1746. The examiner can normally be reached on 7:30-5:00.

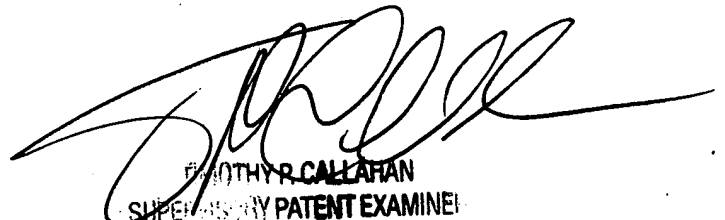
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

An T. Luu

12-14-06 *ALL*

  
TIMOTHY R. CALLAHAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800